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## **ASSESSMENT OF ISSUES AND OPPORTUNITIES FOR SUSTAINABLE SOCIAL ECONOMIC DEVELOPMENT IN ALBANIAN PART OF PRESPA PARK**

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### **Abstract**

The Albanian part of Prespa Lakes Basin includes part of Macro Prespa and Micro Prespa Lakes, and the surrounding forested mountainous slopes, covering a total area of 27750 ha. Despite the contribution of a range of services to human wellbeing, these ecosystems are facing numerous challenges, stemming from the existing practices in many areas that directly or indirectly affect the lakes. An important dilemma encountered in the present situation is the need to sustain growth while preventing damage to environment through the degradation of natural resource. Current resource management practices including water and land-use planning, agriculture, forestry, fisheries and tourism are failing to maintain and restore the health of ecosystems within the Albanian Prespa Lakes area. This paper is focused on issues and opportunities arising from linkages between social economic development and environment. First a summary information on trends and constraints of social economic indicators are provided. Then, associations of environmental issues with social economic activities are analyzed using SWOT analysis method. Finally, some remedies and possible ways for sustainable development are presented in the present paper.

**Keywords:** sustainable development, social-economic, indicators, employment, tourism, SWOT analysis method.

### **1. Introduction**

The Prespa area in Albania (Macro and Micro Prespa), in 1999 was designated as a National Park Prespa (NPP) not only due to the specific geographical features: there are two lakes connected to each other, but and for its very high biodiversity, extremely rich flora and fauna and exceptional beauty. Local economic conditions are poor, conditions are tough and the quality of life is of a low standard. The majority of the local population in the Prespa basin is occupied in the primary sector - agriculture, animal

breeding, fishing, forestry. Farming is labor intensive. Livestock husbandry is integral to the farming system [1, 8]. On average, households cultivate all of their land growing wheat, maize, potato, alfalfa, and vegetables. Almost all of households hold one or two cows mainly for milk, ten to fifteen chickens and few sheep and goats.

Forest areas in Prespa mainly consist of oak forests (63%) and beech stands (15%). There are three factors which impact the condition of forest inside NPP: grazing of animals (goats, sheep, and cows) inside the

forest land, lopping of fodder (branches and leaves) for livestock, and illegal wood cutting. These three practices carried out by the local population for subsistence economy but also for income generation (selling of firewood) had led to a severe degradation of the forest areas. More than 50% of the forest cannot be called forest anymore [3].

Fishery is another important income source in Prespa. On the Albanian side some 100 fishermen from the villages around the lakes regularly fish these waters who earn a significant portion of their income just from the high-value carp fishery [5]. Unfortunately, their activities are disorganised and carried out on an individual basis, while half of them fish informally, i.e. without a licence. There is no reliable data on fish yield, but the steady decrease in catches is attributed to the increased stress on the Lake's ecosystems, or to the lack of profitable markets.

The actual growth of tourism in the area is limited, in particular in the near future, and will depend on a number of factors. Among others, the most needed infrastructure, such as solid waste and wastewater management, drinking water and energy supply etc. are regarded as a severe constraint for the development of tourism.

Considering the above, in this paper firstly, the degradation of ecosystems and loss of biodiversity values in PNP and the park capacity to effectively integrate biodiversity conservation requirements into the management of the productive landscape

is explored. Then, low awareness of status of biodiversity, its importance to sustainable development and socio-economic welfare, and effects of activities on it among stakeholders is documented. Concluding section of this paper gives priority issues to be evolved for sustainable development in Prespa National Park.

## 2. Material and Methods

Survey has been found by us to be almost the only practical means of collecting data about a large number of farmers. Because the farming units were large, our survey was based on samples, which were taken following the strategy to meet statistical reliability objectives. This study is built also on the collection of secondary data pertaining to the study area. This includes local and international published materials, local and international reports and unpublished local information [1, 2, 6, 8, 9]. After a preliminary analysis of the secondary data, we collected primary data by conducting farmer interviews and making both technical and socio-economic observation of the farming system. Then we analysed both primary and secondary data, described the farming system in the survey area in terms of biophysical and socio-economic setting, and drafted the on-farm survey background. For the performance of needs identification and community assessment for sustainable development in Prespa area in Albania, is used the SWOT analysis method.

### **3. Results and Discussion**

#### *3.1. Social Demographic Indicators*

The whole basin is characterized by depopulation, increased migration rates especially of the young, difficulties in trading of local production, disability to adapt to new technologies and challenges, limited participation in decision-making, inadequate social facilities, unemployment and inability of local people to explore and use sustainably the area's competitive advantages.

The distribution of villages and people located around the two Prespa lakes shows that approximately 5300 persons live in 12 villages on the Albanian side. There have been dramatic fluctuations in the population of Prespa reflecting the political, social, and economic changes that have taken place over the past century. There has been an increase in the population of the Albanian Prespa (from 2931 to 5063 between 1945 and 1989).

In AL and MK-Prespa, agriculture engages 70% of the labour force. Agriculture employs approximately 85% of GR-Prespa's population: 50% practice primarily cultivation, livestock 33% and fishery 2%. In the MK-Prespa, agriculture generates roughly 30% of the total income with apples being the primary crop. In addition, many families or family members in both MK and AL-Prespa migrate to find work and many households report that as much as 30% of their income is dependent upon remittances. Based on a various socio-economical factor in Prespa there has been made a calculation

that unemployment rate is around 28% or even more that means that the employment rate is 72%, whereas unemployment rate in Greece and Macedonia Prespa part is respectively around 12%, and 32%. In Albanian part of Prespa region, annual per capita income is estimated at €700, in Macedonian Prespa, is approximately €2000 and in Greek Prespa, annual per capita income is estimated to be as high as €10000 [8].

#### *3.2. Economic Indicators*

The life in the Prespa Park revolves around agriculture (farming and livestock production) that engages approximately 75% of work force. Livestock husbandry is integral to the farming system. Small land ownership and some significant deficiencies in marketing and processing also characterize the sector. The small farm size and the even smaller average size of each parcel, constrain the development of mechanization and the productivity of the crop production sector. The arable land is covered mostly (70%) by cereals (i.e. wheat, corn, barely and rye). The remaining 30% is cultivated with potatoes (1.4%), dry beans (3.2%), vegetables (8.2%), alfalfa (9.6%), fruits (0.9%) and vineyards (6.9%). All arable land is not cultivated intensively. Despite the demand for agricultural land, it is still utilized with inefficiency.

Traditionally, livestock rising was an important economic activity. As for livestock production, goats and sheep are predominant

and cattle plays important role (Table 1). Actually the animal production is taking priority in the total agricultural production. In the future this tendency, especially with possible tourism development and space organization in the Park conditions, will become most important. Even now livestock

has an important economic value. The breeding systems for small ruminants are still traditional: exploitation of the summer and winter meadows and low forest, grazing in the considerable area of non cultivated agricultural land, tree lopping and a relatively limited use of concentration and dry feed.

**Table 1.** Livestock numbers from settlements inside the NPP

<i>Commune or village</i>	<i>Cattle</i>	<i>Sheep</i>	<i>Goats</i>	<i>Donkeys, horses, mules</i>	<i>Total LSU *</i>
Liqenasi	2 560	2 567	3 267	650	4 377
Zagradeci	50	400	50	50	190
Shueci	44	400	250	40	214
Rakicka	60	300	500	50	270
<b>Total</b>	<b>2 714</b>	<b>3 667</b>	<b>4 067</b>	<b>790</b>	<b>5 051</b>

*Source: Commune Liqenas, Bilisht Qendër and Progër*

\* Livestock Units: Cattle = 1, sheep, goats = 0.2, Donkeys, horses, mules = 1

The total forest land inside NPP is 13500 ha, from which 9399 ha (69.6%) belongs to state forest land, 3721 ha (27.6%) to communal and 380 ha (2.8%) to private forest land. Taking into account that at least half of the cattle and about all the horses, donkeys and mules are kept in the households the total present livestock pressure from inside the park is estimated at 2900 LSU (livestock units) and another 1000 LSU may come from outside the national park. The 3900 LSU are not equally spread over a grazing area of 1880 ha and a forest area of 4350 ha. However, abandoned lands and inhabited areas (4950 ha) and cultivable land (2100 ha) are available as well as pasture in the NP, thus relieving the pressure on the forest rangelands and pastures. This results in a total grazing area of about 13280

ha, giving a theoretical livestock charge of 0.3 LSU/ha (= 1.5 Sheep Equivalent Units (SEU)/ha).

Tree lopping for winter fodder production is considered a problem in the Albanian part of the basin, where oak branches are reported to supply about 80% of winter fodder requirements. As a result, woodland near the villages is degraded. A total oak bush area of 2320 ha should be foreseen for lopping, which is about 42% of the 5500 ha of oak shrubs in the park [3].

Wood in the Prespa lakes basin is mainly used for fuel, through legal and illegal cutting. According to estimates of the NPP Administration, the amount of self-consumed wood inside the NP is around 10000 m<sup>3</sup>. Additionally, 1000 m<sup>3</sup> wood is cut and sold to outside communities and an

amount of mostly illegally cut wood of 4000 m<sup>3</sup> stere/year is taken out by some neighbouring communities like Zvesda, Bitincka or Tren. The total annual demand of wood has to come from a forest area of 7500 ha. This gives an average demand of 1.4-1.9 m<sup>3</sup>/ha/yr, or without core zone of 1.6-2.2 m<sup>3</sup>/ha/yr, which can hardly be met by the present growth of these types of forests of 0.35-2.2 m<sup>3</sup>/ha/yr (estimation of the Communal Forest Management Plan of

Liqenas, 2001). However, through rehabilitation, the forest productivity could be improved up to 3-4 m<sup>3</sup>/ha/yr [3].

Fishing is one of the most important sources of income for the Albanian part of the basin, contributing more than 15% of the annual per capita income. It is estimated that about 10% of the labour force is involved in fishing. In years, production and structure has gone under oscillations. In table 2 is shown fishery statistics for Macro Prespa [7].

**Table 2.** Fishery statistics for the Albanian part of Macro Prespa

Years	Carp (%)	Nase (%)	Bleak (%)	Total catch (kv*)	Yield (kg/ha)
1954-1960	20	13	67	1500	3
1960-1970	13	5	82	3700	9
1971-1975	3	6	91	18072	90
1976-1980	0.5	4	95.5	25989	129
1981-1985	0.5	3	96.5	22415	112
1986-1990	4	5	91	12177	60
1991-1995	5	8	87	6933	34

**Table 3.** Annual income of tourism in National Park Prespa

Name	No. of beds	Overnight capacity	Overnights	Employees (perm./seasonal)	Income (€)
<b>a. Accommodation</b>					
Hotels	34	12 410	1 438	10/12	14 380
Private accommodation	440	160 600	4 824		24 120
<b>Sub-total</b>	<b>474</b>	<b>173 010</b>	<b>6 262</b>	<b>10/12</b>	<b>38 500</b>
<b>b. Food</b>					
	<i>Seats</i>	<i>Capacity</i>	<i>Visitors</i>	<i>Employees (perm./seasonal)</i>	<i>Income</i>
Restaurants	375	136 875	11 520	28/32	57 600
<b>Total</b>				<b>38/44</b>	<b>96 100</b>

Tourism in the lakes area is small-scale rural and family tourism, based on a few small hotels, private accommodation and restaurants. Today, tourism plays an important role, as access to rural areas has improved, and more and more people are travelling. At present, tourism to the area is

mostly limited to seasonal visits by tourists. The numbers and origin of visitors indicate that the Prespa area is more demanded by domestic and in particular by regional tourists from neighbouring countries. The data collected by us are given in table 3 [4].

### 3.3. *Priority Issues for Sustainable Development in Prespa National Park*

The steps that were undertaken by us in assessment of sustainable development in Prespa region were the following: needs identification and community assessment and the ranking of priority issues for sustainable development. In Grazhdani [4] are given the results of SWOT analysis method for the performance of needs identification and community assessment for sustainable development in Lakes Prespa region. After the needs identification and community assessment was finalized, the issues to be the most important for the sustainable development in Lakes Prespa area were set by us. The ranking of priority issues to be evolved in the future for sustainable development in Prespa National Park are as follows:

**a. Sustainable use of natural resources:** involvement of mixed small farm systems that combine crops, animals and trees, organic farming; decreasing the total sheep and goat numbers, increasing or remaining stable of cow numbers and specializing some farmers and enlarging their herd size, but rather in cow and sheep than in goats; elaboration of forest function plans and forest management plans for the forest area inside NPP, no more signs for illegal firewood cutting, browsing and tree lopping; introduction of a sustainable silvi-pastoral system; assistance to afforestations for firewood production inside NPP; creation of infrastructures and procedures for restarting

of alpine and sub-alpine pastures for livestock grazing; enrichment of autochthonous fish stocks; etc.;

**b. Conservation of environment:** protection of conservation status of key habitats and key species in the region, ecological integrity of significant habitats; adequate disposal of solid waste and construction of wastewater treatment system, adequate road and transport facilities; reliable power and drinking water supply etc.;

**c. Park management effectiveness and operations:** elaboration of Park Management Plan according to international standards; strengthening the park's management effectiveness by acquisition of essential infrastructure and equipment; enhancement of staff capacities (to include education and tourism, monitoring and research sections) to be compliant with legislative and expanded management requirements; introduction of appropriate planning instruments, establishment of working arrangements with partners and operational planning; redefinition of responsibilities for financial management and operational planning; park staff qualifications in relation to its new responsibilities; establishment of monitoring procedures; contribution of park to the income of the local population; establishment of trans-boundary management programmes with Galiçica Park (in Macedonia) and Prespa National Park (in Greece); demarcation of boundaries and zones, installation of park signage etc.;

**d. Ecotourism development:** improvement of tourism infrastructure and services, seasonality, water quality and public access to the area; development of sustainable transport; protection of the waterbodies against pollution; creating a system for communal tax deduction for investment in development of tourist services; establishment of info centre, organizing hiking, boat, baking tours in the region, medical and health services, cleaner environment & infrastructure (solid waste, waste water treatment); provision and management of beaches (cleaning). etc.; restoration and protection of the tourism and natural, historic and cultural heritages, monuments, traditional buildings, human traditional activities and cultural elements etc.;

**e. Community involvement and economic benefits:** establishment of structure and mechanism for public involvement as required by Law on Protected Area; establishment of the sustainable agriculture office and local office for monitoring and licensing of food quality etc.; wide use of the local productions (organic or protected area products), animal races and plant varieties; support for diversification of income sources; support for improved marketing of local products, elaboration and delivery of environmental education programme etc.

#### 4. Conclusions

There are a number of obstacles to sustainable development in the Prespa National Park. Some of these obstacles operate at higher levels (national laws, poor economic performance of the country and region as a whole, low influx of foreign tourists due to the decade-long conflicts and political instability in the region etc.). Some of them originate directly from the established management practices in the PNP that resist the deep paradigmatic shift in understanding the nature conservation and the notion of sustainable development.

For the future of the sustainable development, a major goal is to promote development of a balanced and diverse regional economy that wisely uses the region's natural, man-made and human resources, while respecting the limitations of the environment.

#### 5. References

1. Catsadorakis, G., & Malakou, M.: **Conservation and management issues of Prespa National Park**, *Hydrobiologia* 1997, **351**:175-196.
2. Goldwin, H.: **In Pursuit of Ecotourism**. *Biodiversity and conservation* 1996, **5** (3): 277 – 291.
3. Grazhdani, D.: **How to Plan a Sustainable Forestry Management When Environmental Goals Conflict with Existing Practices in National Prespa Park**. *Proceedings of BALWOIS Conference* 2010, 7 pp.
4. Grazhdani, D.: **Current Status of Tourism and its Opportunities for Ecotourism Development in the Lakes**

- Prespa Region.** *Proceedings of BALWOIS Conference* 2010, 8 pp.
5. Grazhdani, D.: **Social Economic Aspects of Fishery and Fishing Activities in Albanian Part of Prespa Lakes.** *Journal of International Environment Application & Science* 2009, Nr. 4(3): 253 – 259.
6. Hall, D.: **Sustainable Tourism Development and Transformation in Central and Eastern Europe.** *Journal of Sustainable Tourism* 2000, Vol. 8 (6): 441-454.
7. Kapedani, E., Gambetta V.: **Ichthiofauna and fishery in Prespa lakes.** In: *Towards integrated conservation and sustainable development of transboundary Macro and Micro Prespa Lakes:* Gjikhuri L., Miho A., & Shumka S. (Eds); 1997: 138-141.
8. KfW: **KfW Feasibility Study: Project Preparation & Development of the Transboundary Prespa Park Project,** 2005.
9. Society for the Protection of Prespa: **Strategic Action Plan of the Conservation and Sustainable Development of the Prespa Park,** 2003. Aghios Germanos, Greece.